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CAN CROUPOUS PNEUMONIA BE ABORTED?

BY

THOMAS J. MAYS, M.D.,

PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC AND VISITING PHYSICIAN TO THE RUSH HOSPITAL FOR CONSUMPTION.

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PROFESSOR OF DISEASES OF THE CHEST IN THE PHILADELPHIA POLYCLINIC, AND VISITING PHYSICIAN TO THE RUSH HOSPITAL FOR CONSUMPTION.

IF one fact is more patent than another, it is that when the medical profession comes to deal with the treatment of croupous pneumonia it is like a rudderless ship in a storm at sea. Why this should be so is not easy of explanation. Here is a disease, constant in its pathology and morbid anatomy, and the physical signs and nature of which are well recognized, and yet the most opposite and varied forms of treatment are and have been advocated, and it is even taught by some of our latest text-books on practical medicine that the expectant or "let alone" treatment is productive of the best practical results.

This seems to be a startling state of affairs, although I must confess that until recently I had no special reason to believe that my work in this direction was followed by any better results than were to be expected by natural recovery from the disease. From later experience, however, which, I trust, will not prove altogether anomalous, I feel convinced that the skepticism that has invaded the profession concerning the utility of therapeutic art in pneumonia is not justified by what may be accomplished. The

ground for this faith rests principally on the following detailed results that have been obtained in the treatment of two cases of acute pneumonia under my care in the Polyclinic Hospital. The principal treatment in these cases—which was, I believe, first suggested by Niemeyer—consisted in enveloping the affected chest-area in ice, and, although the cases are too few to warrant any extensive deductions, I think they clearly demonstrate that the local influence of a very low temperature is directly antagonistic to the pneumonic condition. I had long been accustomed to apply ice to the chest in pulmonary phthisis, for the purpose of controlling the acute exacerbations, and with exceptionally good results; hence I did not share in the widely prevalent fear that the application of ice in inflammatory diseases of the lungs is fraught with danger to the patient.

Case I.—P., a colored female, twenty-five years old, came under my care November 24, 1891, with the following history: Four days previously, when her temperature, pulse, and respiration were normal, Dr. Baer removed her left ovary, which contained a large hematoma. On the morning of my first visit she had a temperature of 103.4°, and a physical examination showed that the lower parts of both lungs were in a state of consolidation, extending the higher upon the right. There was also evidence of pleurisy on this side. The temperature had risen rather suddenly, for on the morning of the 22d it was 99°, while on the evening of the 23d it reached the height of 103.4°, as already stated. On the morning of the 24th ice-bags were applied to the front of the chest upon the right, and to the lat-

eral aspect of both sides of the chest, and, with few intermissions, were kept almost constantly applied for about two weeks. The temperature began to decline immediately after the ice was applied, and, excepting a slight rise on December 3d, sank to nearly a normal level on the eleventh day, as is shown by the following temperature table :

	Morning.	Evening.
November 24th . . .	103.4°	102.4°
" 25th . . .	101.4	100.6
" 26th . . .	100.0	99.8
" 27th . . .	101.0	100.0
" 28th . . .	100.8	100.8
" 29th . . .	99.0	101.0
" 30th . . .	101.0	99 8
December 1st . . .	99.2	99.8
" 2d . . .	99 6	99.8
" 3d . . .	98 8	101.4
" 4th . . .	98.5	99.8
" 5th . . .	99.2	99.8
" 6th . . .	98.6	99.8

Subsequently, the temperature remained practically normal.

Simultaneously with the fall of the temperature there was a corresponding improvement in the physical signs and symptoms. The depressing effect of the ice on the temperature-curve was immediately shown after its application. When the ice was removed, as it was several times during the course of the disease, the temperature almost invariably rose. This partly accounts for the unsteady temperature-line between morning and evening, which is not shown fully in the foregoing figures—although, on the whole, the woman was of a nervous temperament, and this unquestionably influenced her temperature curve in a measure. Her nervousness is

indicated by the frequency of her respirations; these were 48 per minute at one time, and in four hours they fell to 24, and without any apparent cause.

In addition to the ice she received two ounces of freshly-expressed beef juice alternately with half an ounce of beef meal in coffee or chocolate, every two hours, and half an ounce of whiskey in a glassful of milk, every three hours. As far as drugs were concerned she received quinine and phenacetin internally in small doses, and an occasional hypodermatic injection of morphine to produce sleep and to alleviate pain.

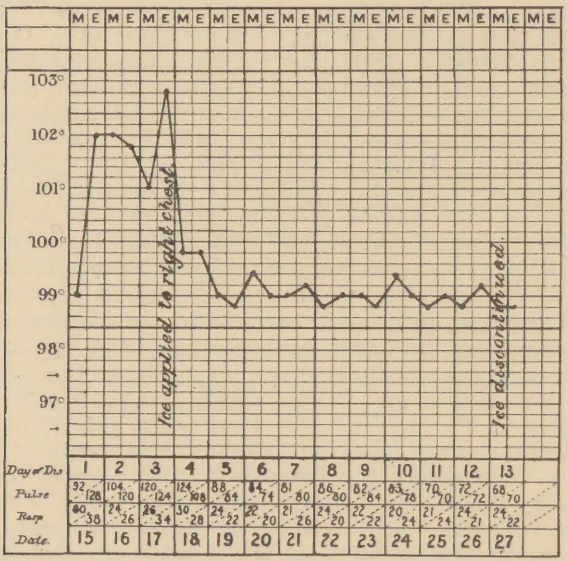
In some respects this case was peculiar. There was no cough or expectoration, except on the seventh day, when several mouthfuls of blood were spat up. The woman suffered greatly from dyspnea, although the pulse never exceeded 120 in frequency, and usually oscillated between 90 and 106. It may be said that the defervescence was slow, but when it is remembered how prone any inflammatory disease of the lung in the negro race is to run into catarrhal disease and become chronic, I think the result on the whole is rather gratifying.

Case II.—F., a girl, eighteen years old, was first seen on June 17, 1892, when she presented the following physical signs: The pulmonary percussion-resonance was impaired over the whole anterior surface of the right lung, with dulness, approaching to flatness, over the whole posterior and lateral surfaces of the lung. Expiration was decidedly prolonged over the anterior surface from apex to base, and crepitant, subcrepitant, and some sibilant râles were

heard over the posterior and lateral portions of the lung. The conditions manifested on the part of the left lung were normal, except that the breathing was puerile. There were abdominal pain, cough, mucous expectoration, and a temperature of 102.8°; the respirations were 34, and the pulse 124. On the afternoon of this day the right chest was well enveloped in ice-bags—a large one in front, and two at the side and posteriorly as much as possible. Another ice-bag had been applied to the head in the morning. Internally the girl received $\frac{1}{25}$ of a grain of strychnine and five grains of quinine every three hours. She was also given an ounce of fresh beef-juice every two hours, and milk and whiskey. On the morning and evening of the following day (18th) the temperature had fallen to 99.8°, and the physical signs were unchanged, except that the prolonged expiration had disappeared anteriorly and was replaced by crepitation. On the 19th the sputum was rusty-colored, and in the evening the temperature was 98.8°. On the 21st there was a perceptible improvement in the pulmonary percussion-resonance of the whole lung. Very few râles were heard, except at the extreme lower part of the lung. The expectoration had become muco-purulent and rusty. On the 24th no râles could be heard at any part of the chest. The percussion-resonance was vesicular anteriorly and laterally, and but slightly impaired posteriorly. Expectoration had ceased. Strychnine was discontinued on account of a manifestation of its physiologic effects. On the 26th the percussion-resonance continued to be slightly impaired in the right interscapular region. No râles were heard. The respiratory murmur was normal over the whole lung, excepting for slight impairment in the interscapular region.

On the 27th the ice was discontinued, and on the

6th of July, after progressive convalescence, the girl was discharged. The chart illustrates the temperature, pulse, and respiration of this case.



In conclusion, I do not desire to be understood as believing that ice will be found a panacea in pneumonia, but I think the histories of the two cases here related show that cold applications to the chest have a direct, beneficial action on the pneumonic process, not only in the sense of limiting its extension, but in dissipating it. This was especially well demonstrated in the second case, in which the local condition, as indicated by the physical signs,

improved immediately after the ice had been employed.

One other feature may be referred to in this connection. In neither of these cases was there anything like a critical period, but merely a more or less rapid subsidence of the local and general disturbance—giving one the impression that, if the disease was not aborted, it received a decided check, and was certainly not allowed to pursue an even and uninterrupted course.

Probably not the least important lesson that may be learned from these cases is that the fear that cold or ice applications in pneumonia are detrimental to the patient is entirely unfounded, and, if this demonstration will serve to allay this apprehension, I feel that these cases have not been reported in vain.